

TCM Series

Motorized Test Stands

100 lbf (500 N) & 350 lbf (1500 N)



Features

Key Features

► Easy Operation

A single key press to start the test and a return to zero function save time. A high maximum speed of 40 in/min (1016 mm/min) further reduces cycle time.

► Smart Functionalities

The large touch sensitive buttons feature haptic feedback that reduces the time taken to configure and run a test while reducing operator errors. Tests can be configured to pull to a set position or cycle between 2 positions. When combined with specific Chatillon force gauges, additional features such as driving to a load limit and recording break forces become available.

► Accurate Test Results

Combined with the Chatillon DF II Series force gauges the load accuracy exceeds 0.1% full scale. Advanced electronics enable set speed accuracy of < 0.1% of set speed value and data sampling rates up to 10 KHz.

► Large Working Area - Small Footprint

The compact TCM features a large throat depth enabling samples up to 7.96 in (200 mm) diameter to be tested, yet retains a compact footprint.

► Data Analysis and Integrity

Optional Chatillon ForceTest software allows viewing data in graphical form, data logging, result calculations, pdf report creation and data export. Password controlled access helps ensure the integrity of the data produced. Download your free trial version now at www.ametektest.com.

Intuitive Effectiveness

The motorized TCM Series from Chatillon offers fast and effective force testing at an affordable price.

The TCM Series features a high frame stiffness, light weight bench top design suitable for both production and laboratory environments.

Force ranges of 100 lbf (500 N) and 350 lbf (1500 N) are available in both 16 in (406 mm) and extended 32 in (812 mm) travel versions.

Select from Chatillon's wide range of grips and fixtures to use the TCM Series for a wide variety of tests such as:

- Tension
- Compression
- Bending
- Peeling
- Adhesion
- Insertion and extraction



Force Capacity

TCM100.....	100 lbf / 500 N
TCM350.....	350 lbf / 1500 N

Crosshead Travel

TCM100.....	16 in / 406 mm
TCM100 Extended	32 in / 812 mm
TCM350.....	16 in / 406 mm
TCM350 Extended	32 in / 812 mm

A Modular System

The TCM Series offers you a flexible force measurement solution that matches your exact needs. This way you get a solution that lives up to your requirements, without costs for additional features you do not need. Should your needs change over time then it is easy to upgrade your TCM solution to fit your new requirements.

Base Solution

The TCM Series can be used in combination with Chatillon DFE or DFS Series force gauges. This way, if you already have a Chatillon force gauge available, you only need to acquire the TCM Series test stand to get started on your force testing, enjoying all of

the benefits that the TC Series has to offer:

- ▶ Easy operation
- ▶ Haptic feedback buttons
- ▶ LED color display
- ▶ Set position or cycle between 2 positions



Extra Benefits

By adding a digital force gauge from the Chatillon DFE or DFS Series to your TCM Series test stand, additional features will become available enabling you to perform a more advanced, fast and easy force testing on your specimens.

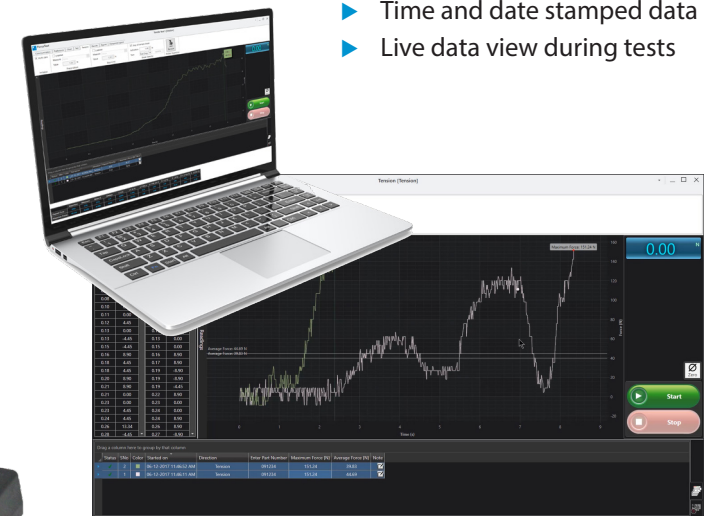
- ▶ Drive to load limit
- ▶ Password protection
- ▶ Pass/Fail limits
- ▶ Average load
- ▶ Statistics
- ▶ Peak break force
- ▶ Contact close feature
- ▶ Access to ForceTest PC software



Fast and Easy Analysis

Adding the Chatillon ForceTest software will power up your TCM Series force testing solution and will turn your analysis into a fast and simple process. By combining the DFE or DFS Series gauge and the ForceTest software with the TCM Series you obtain:

- ▶ Seamless serial data communication from the test machine to your computer
- ▶ Save test setup and achieve faster workflow
- ▶ Export data as CSV or PDF
- ▶ Time and date stamped data
- ▶ Live data view during tests



Specifications

Technical Specifications

Force Capacity

TCM-100 100 lbf / 500 N
TCM-350 350 lbf / 1500 N

Speed Range

TCM-100 5.08 to 1016 mm/min /
0.2 to 40 in/min
TCM-350 5.08 to 1016 mm/min /
0.2 to 40 in/min

Speed Accuracy

0.1% of set speed value

Crosshead Travel

TCM100 16 in / 406 mm
TCM100 Extended 32 in / 812 mm
TCM350 16 in / 406 mm
TCM350 Extended 32 in / 812 mm

Supply Voltage

207-253 VAC at 50 Hz or 103.5-126.5 VAC at 60 Hz

Load Measurement

Chatillon DF Series gauge

Software

ForceTest

Weight

57 lbs / 26 kg - Standard height
69 lbs / 32 kg - Extended height

Shipping Weight

85 lbs / 39 kg - Standard height
132 lbs / 60 kg - Extended height

Throat Depth

3.98 in / 100 mm

Operating Temperature

50-104° F / 10-40° C

To ensure you receive an accurate, reliable instrument of the highest quality, Chatillon force measurement machines are designed and handcrafted at our factories in the United States in accordance to ISO 9001.

The TCM Series is CE certified and supported by our global service centres in accordance to ISO 17025.

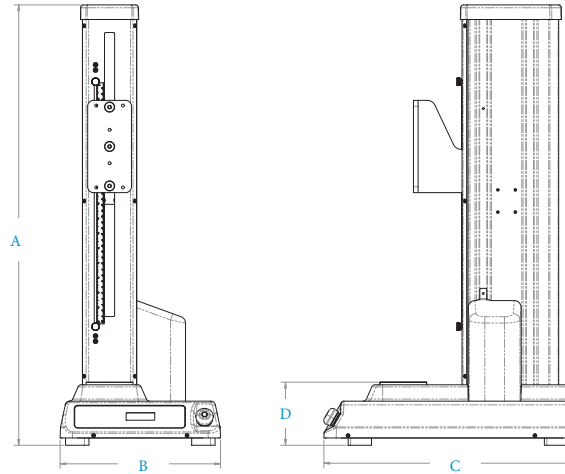
Quality and integrity are part of our DNA, and we would like to help make it a part of yours as well.



Specifications & Ordering

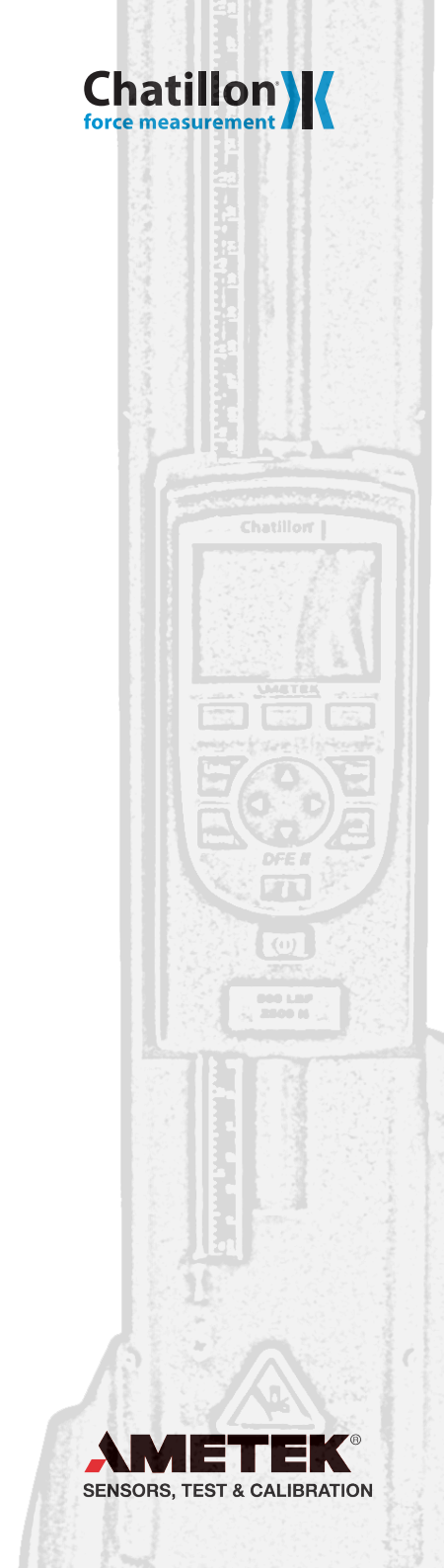
Dimensions

A	Height	TCM100	29.7 in / 754 mm
		TCM100 Extended	45.7 in / 1161 mm
		TCM350	29.7 in / 754 mm
		TCM350 Extended	45.7 in / 1161 mm
B	Width	TCM100	10.8 in / 275 mm
		TCM350	10.8 in / 275 mm
C	Depth	TCM100	17 in / 431 mm
		TCM350	17 in / 431 mm
D	Base Height	TCM100	4.3 in / 108 mm
		TCM350	4.3 in / 108 mm



Ordering

Order Number	Description
	Model / Force
TCM100	TCM100, 100 lbf / 500 N
TCM350	TCM350, 350 lbf / 1500 N
	Crosshead Travel Height
S	Standard 16"
E	Extended 32"
	Power
115	115 VAC 60 Hz, US Power Cord
230	230 VAC 50 Hz, UK and EU Power Cord
230CNAU	230 VAC 50 Hz, China and Australia Power Cord
	Mounting
A	1/2-20F thread in base with 5/16 18M and 10/32M Base Adapter Coupling Kit
B	5/8" Eye End in Base and 5/8" Eye End Adapter Kit for DFE/DFS gauges
	Sample order number
TCM100 E 230 A	TCM100 Extended, 230 VAC 50 Hz UK and EU Power Cord and with a Base Adapter Coupling Kit



Accessories

Standard Accessories

Description	Part Number	TCM A Version	TCM B Version
1/2-20F Thread Base Plate	6344-01	●	●
1/2-20M to 5/16-18M Coupling	17162	●	
1/2-20M to 10M/32M Coupling	NC003238	●	
5/8" Eye Adapter to 1/2 20 Male Thread/ w / Pin & Locking Rings	SPK-TLC-003		●
5/8" Eye End Kit and Grip Pin for DFE/DFS Gauges	SPK-TCM-001		●
TCM USB to PC USB Cable, 3M (for Upgrades & PC Connection)	SPK-TCM-016	●	●
TCM to DFG Cable (Load Limit Communication to TCM)	SPK-TCM-018	●	●

TCM A Version



Coupling
1/2-20M to 5/16-18M



Coupling
1/2-20M to 10/32M

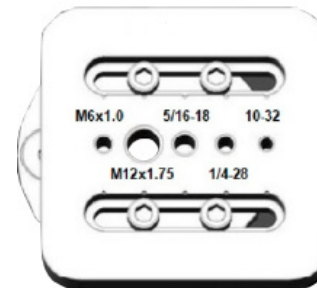
TCM B Version



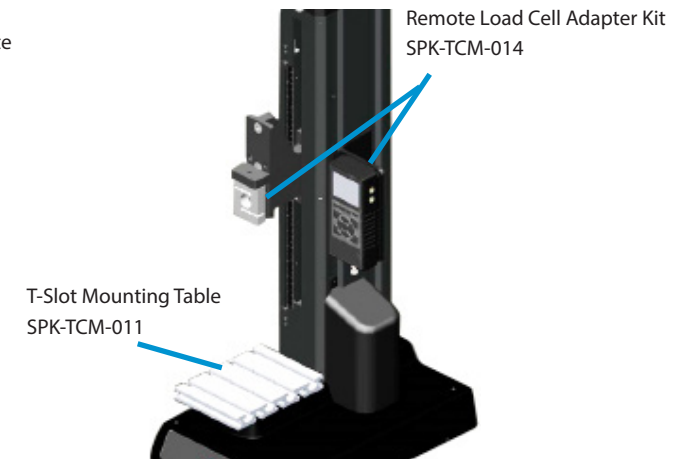
5/8" Eye End Kit
SPK-TCM-001

Optional Accessories

Description	Part Number
Multi-Thread Plate Kit	SPK-TCM-005
T-Slot Table	SPK-TCM-011
Foot Switch	NC002910
Splinter Shield	SPK-TCM-012
DFS Series Remote Load Cell Adapter Kit	SPK-TCM-014
3" Compression Platen	SPK-TCM-013



Multi-Thread Plate
SPK-TCM-005



Remote Load Cell Adapter Kit
SPK-TCM-014

T-Slot Mounting Table
SPK-TCM-011

Contact

USA, Florida

Tel +1 (800) 527 9999
test.sales@ametek.com

India

Tel +91 22 2836 4750
test.sales@ametek.com

Singapore

Tel +65 6484 2388
test.sales@ametek.com

China, Shanghai

Tel +86 21 5886 5111
test.sales@ametek.com

China, Beijing

Tel +86 21 8526 2111-19
test.sales@ametek.com

United Kingdom

Tel +44 (0) 1243 833 370
stc.uk@ametek.com

France

Tel +33 (0) 30 68 89 40
general.lloyd-instruments@ametek.fr

Germany

Tel +49 (0) 2159 9136 510
info.mct-de@ametek.de

Denmark

Tel +45 4816 8000
test.sales@ametek.com

For detailed specifications
go to the Data Sheet at ametektest.com

Chatillon
force measurement

No part of this document may be reproduced or modified in any form or by any means, electronic or mechanical, without express written permission from AMETEK STC.